

Date: Thu, 24 Mar 94 04:30:22 PST  
From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>  
Errors-To: Ham-Digital-Errors@UCSD.Edu  
Reply-To: Ham-Digital@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Digital Digest V94 #80  
To: Ham-Digital

Ham-Digital Digest                      Thu, 24 Mar 94                      Volume 94 : Issue    80

Today's Topics:

    "G-TOR" info hot off the press  
    9600 bps packet with TM-211 radio  
    [REPOST] NTS Traffic on Packet (3 msgs)  
        Getting into packet  
        HP100LX Palmtop & Baycom?  
        KPC-3 and TCPIP (2 msgs)  
        packet radio kits  
    RS htx202/KPC-3 wiring question  
        TCPIP on a UNIX box

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>  
Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Digital Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-digital".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Wed, 23 Mar 1994 16:57:57 GMT  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!vixen.cso.uiuc.edu!uchinews!  
kimbark!khopper@network.ucsd.edu  
Subject: "G-TOR" info hot off the press  
To: ham-digital@ucsd.edu

Yesterday there were a series of questions about the new KAM G-TOR  
protocol for PacTOR (or is it now G-TOR) digital communication.

The previous thread asked whether or not G-TOR is public. Well  
according to the article in RDJ and QST it is based on  
MIL-STD-188-141-A and the diagram in the RTTY Digital Journal (Volume  
42, Number 3, March 1994, pp20-21) shows the frame contents and timing.  
It looks like KAM wishes to make it publically available. Perhaps

someone can reach Phil Anderson, W0XI (who wrote the RDJ article and works for Kantronics) for a clarification.

The short paragraph in the April QST says the new KAM standard is based on the work done for the Voyager spacecraft imaging of Saturn and Jupiter ("Golay" forward error correction encoding). The RDJ says it is based on the MIL-STD and that extensive simulation was done inhouse before actual on-the-air tests. The live tests exceeded their expectations and yielded a consistent 2X PacTOR throughput. One example states that a 10K byte file was transmitted in just over 5 minutes KAM G-TOR compared to 20 minutes in PacTOR.

Features include:

- (1) Dramatically increased throughput even in the presence of multi-path
- (2) Extended "Golay" forward error correcting code.
- (3) Full-frame interleaving
- (4) On demand Huffman data compression with RLE encoding.
- (5) Link-quality based baud rate of 300,200,or 100.
- (6) 2.4 second hybrid ARQ cycle
- (7) Fuzzy ACK
- (8) Reduced overhead within data frames
- (9) Standard FSK tone pairs and TU's can be used (to differentiate it from the new PacTOR-2 equipment using PSK and DSP modems).

The article in RDJ goes on to explain the actual forward error correcting code and how the extended version of the Golay polynomial is used. The article explains their testing procedure and ends with this statement:

"Throughput exceeds other existing all-mode TNC modes by better than two-to-one"

It is important \*\* to note that G-TOR uses AMTOR FEC (not PacTOR FEC) and commands are AMTOR like (not PacTOR like).

I have NO connection to any hardware or software company. I am posting this for information and entertainment purposes only :-).

G-TOR is a trademark of Kantronics Co, Inc, 1202 E. 23rd Street, Lawrence KS, 66046 phone: 913.842.7745.

The RTTY Digital Journal can be reached at 1904 Carolton Lane, Fallbrook, CA 92028-4614 and carries hot articles of interest to all Digitally enabled hams. Subscriptions are \$16US.

Ken Hopper,  
November 9 Vivid Video

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| o o \_/ o o |
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HF - CW,PacTOR,RTTY,SSTV |o o @ o o|  
khopper@midway.uchicago.edu |\_\_\_\_\_|

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Date: 23 Mar 1994 17:06:55 GMT  
From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!geraldo.cc.utexas.edu!  
paulus@network.ucsd.edu  
Subject: 9600 bps packet with TM-211 radio  
To: ham-digital@ucsd.edu

Dear Netters,  
I need info about the injection point and pick-up point for 9600 bps  
packet operation on a Kenwood TM-211 radio.

Tnx,

73 de Paulus N5SNN / YG1QN

--  
Paulus Suryono Adisoemarta  
yono@ccwf.cc.utexas.edu  
yono@gnu.ai.mit.edu  
paulus@nextdown.pe.utexas.edu

-----  
Date: 23 Mar 1994 16:04:03 GMT  
From: ihnp4.ucsd.edu!usc!elroy.jpl.nasa.gov!ncar!csn!col.hp.com!  
jms@network.ucsd.edu  
Subject: [REPOST] NTS Traffic on Packet  
To: ham-digital@ucsd.edu

Danny Yarbrough (yarbrda@moose.gdss.grumman.com) wrote:  
: [This is a repost of an article I sent out on March 15....since I  
: can't find it anywhere other than at my news feeder's site, I suppose  
: it got dropped on the floor...somebody correct me if I'm wrong, please]

: I'm curious about how NTS traffic travels on packet. If someone has a  
: reference on the technical aspects of how it works, I'd be very  
: interested (I've got the "how-to" kinds of information, like how you  
: format and send an NTS message via packet; I'm interested in the  
: details of how it happens once I enter "/ex").

Randomly, haphazardly and, more often than not, slowly, if at all.

Mike, K0TER

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Date: Wed, 23 Mar 1994 17:50:50 GMT  
From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!howland.reston.ans.net!  
usenet.ins.cwru.edu!news.csuohio.edu!sww@network.ucsd.edu  
Subject: [REPOST] NTS Traffic on Packet  
To: ham-digital@ucsd.edu

Mike Stansberry (jms@col.hp.com) wrote:  
: Danny Yarbrough (yarbrda@moose.gdss.grumman.com) wrote:  
: : [This is a repost of an article I sent out on March 15....since I  
: : can't find it anywhere other than at my news feeder's site, I suppose  
: : it got dropped on the floor...somebody correct me if I'm wrong, please]  
: :  
: : I'm curious about how NTS traffic travels on packet. If someone has a  
: : reference on the technical aspects of how it works, I'd be very  
: : interested (I've got the "how-to" kinds of information, like how you  
: : format and send an NTS message via packet; I'm interested in the  
: : details of how it happens once I enter "/ex").  
: :  
: Randomly, haphazardly and, more often than not, slowly, if at all.  
: :  
: Mike, K0TER

R ... just like voice ... except the words aren't slurred together.

Steve, N08M.#NEOH.OH.USA.NA

-----  
Date: Wed, 23 Mar 1994 18:17:00 GMT  
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!  
usenet.ins.cwru.edu!news.csuohio.edu!sww@network.ucsd.edu  
Subject: [REPOST] NTS Traffic on Packet  
To: ham-digital@ucsd.edu

Much like a regular packet message, the decision to route a message is done via a hierarchial address assigned to the zip code or part thereof. From there, things get complicated.

If I have a message to go to Europe, my best route is to send it to KP4GE in Puerto Rico. We have an excellent path and Ramon connects often to get mail into Europe. IF 20 meters is open, it goes as soon as I have time to punch the buttons. (HF can also be automated however there is a strong push to do away with automated HF. Some hope that it will be forced into small band segments and thereby die by strangulation. The FCC has been approached with this form of rulemaking. The result is that I trade automation for the better throughput of pactor. The effect

is that there will be digital signals in a VERY wide area of the band as pactor requires one frequency for two stations rather than the ten or fifteen that used to share our HF packet net on one frequency). Once KP4GE gets it, he will forward it into Europe.

Obvious is the fact that we need (1) propagation and (2) time to punch buttons and attend the HF station.

Traffic on VHF will move quickly as virtually all of my area BBS stations are in a constant forwarding loop. However, the steps are smaller and it takes longer. Everything is automated and no propagational effects are there to hold things up. Messages between Cleveland and Columbus should not take more than an hour or two.

So what holds things up? Propagation is not really a factor. I can get to KP4GE almost at will now that we have pactor. He can also get to Europe without too much fuss. HF routing is now dependent on the sysop's schedule. VHF requires that the route is there. A power failure or disk crash can hold things up quite a bit. So can Sundays (KP4GE is a preacher). If I am out of town camping, it has to wait a few more hours until KP4GE checks. Visa versa if he is gone. If there is a catastrophic failure, the traffic would be routed two BBSs west, to the next HF forwarder.

How long does it take? There are too many variables to consider. Don't like the variables? Keep it on voice as if the same variables aren't there, too.

73,

Steve

N08M.#NEOH.OH.USA.NA

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Date: Thu, 24 Mar 1994 00:16:49 GMT  
From: ihnp4.ucsd.edu!munari.oz.au!newshost.anu.edu.au!sserve!usage!metro!  
sunb.ocs.mq.edu.au!tony.mpce.mq.edu.au!tony@network.ucsd.edu  
Subject: Getting into packet  
To: ham-digital@ucsd.edu

In article <tony.18.764302595@mpce.mq.edu.au> tony@mpce.mq.edu.au (Tony Farrow) writes:

>From: tony@mpce.mq.edu.au (Tony Farrow)

>Subject: Re: Getting into packet

>Date: Tue, 22 Mar 1994 02:16:35 GMT

>Keywords: baycom, modem

>> On Fri, 18 Mar 1994 tony@eis.calstate.edu wrote:

>>

>> > >Does anyone know a cheap way to get into packet radio? (What is needed  
>> > >on a 2-meter tnc for packet?)

>> > >Thanks.

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>> > >--
>
>Here are a couple of sources of simple modems.  They are baycom-type
>modems, which use the computer as the TNC.  I have used a couple
>built from an article in Electronics Australia in Jan 1993.  They work
>extemely well with Eskay Packet, Baycom and Graphic Packet
>software.  Kits were also available from the author, Tom Moffatt
>VK7TM for about Aus$79.  He may well still be supplying them.  His
>address is:
>
>High-Tech Tasmania,
>39 Pillinger Drive,
>Fern Tree,
>Tasmania.
>Australia 7064.
>
>I have seen a similar but already-built modem advertised in 73
>magazine, the Model BP-1 Packet Modem (Baypac) ~$50, from.
>
>Tigertronics Inc.,
>400 Daily Lane, PO Box 5210, Grants Pass, OR 97527.
>1-800-822-9722,
>
>Cheers ... Tony vk2tjf
>*****
>*  Dr Tony Farrow,          *
>*  Physics Department,      *
>*  Macquarie University,    *
>*  Sydney, Australia 2109.  *
>*  tony@mpce.mq.edu.au     *
>*****
>*****
>*  Dr Tony Farrow,          *
>*  Physics Department,      *
>*  Macquarie University,    *
>*  Sydney, Australia 2109.  *
>*  tony@mpce.mq.edu.au     *
>*****

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Date: Wed, 23 Mar 1994 14:50:49 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!usenet.ins.cwru.edu!
news.uakron.edu!news.csuohio.edu!sww@network.ucsd.edu
Subject: HP100LX Palmtop & Baycom?
To: ham-digital@ucsd.edu

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Has anyone been able to get Baycom to work on the Hewlett Packard

100LX palmtop? After externally powering the Baycom, I was able to transmit readable packets. However, it does not appear that the HP is reading the CTS line. I have verified that data is going to the CTS out.

There is a pretty good user support group on comp.palmtops and HP seems interested in any application it can be put to. I wanted to check here first.

Also, the palmtop runs the MSYS BBS without a complaint. Running with 300 message slots and about 500 BIDs left me over 150k free (so I could make lots more slots and BID space).

Interesting that a 80188-based machine can run the serial port at 57k yet we have to watch our BBS phone ports for dropped characters.

73,  
Steve

ag807@cleveland.freenet.edu < works better  
N08M@N08M.#NEOH.OH.USA.NA

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Date: 22 Mar 94 20:05:13 GMT  
From: agate!howland.reston.ans.net!wupost!csus.edu!netcom.com!  
dparker@ucbvax.berkeley.edu  
Subject: KPC-3 and TCPIP  
To: ham-digital@ucsd.edu

Dennis E. Jacobson (n6ng@crl.com) wrote:  
: After reading about the recommendation for the KPC-3 the thought crossed  
: my mind that it might be what I'm looking for to run a portable TCPIP  
: system.. The next question of course becomes does the KPC-3 run KISS  
: and has anyone used it for TCPIP. I'm currently using the GRI NOS on  
: my home TCPIP system... Has anyone used the PA0GRI nos with the KPC-3?

One thing to consider is there is no upgrade for 9600 bps on this  
TNC, look at the DRSI DPK-2 at least it has a modem disconnect  
header so you can use an external high speed modem later if you wish.  
Its priced roughly in the same ballpark as the KPC-3.

Dave, KD6RRS  
Tracy, CA

-----  
Date: Wed, 23 Mar 94 18:06:31 GMT  
From: mnemosyne.cs.du.edu!nyx10!nburnett@uunet.uu.net

Subject: KPC-3 and TCPIP  
To: ham-digital@ucsd.edu

hanko@wv.mentorg.com (Hank Oredson) writes:

>In article <2mksi3\$mal@crl.crl.com>, n6ng@crl.com (Dennis E. Jacobson) writes:  
>|> After reading about the recommendation for the KPC-3 the thought crossed  
>|> my mind that it might be what I'm looking for to run a portable TCPIP  
>|> system.. The next question of course becomes does the KPC-3 run KISS  
>|> and has anyone used it for TCPIP.

>Yes, and Yes.

>KPC-3 is excellent value for the money.  
If you only want to go 1200 baud it's fine and if you want to keep the same  
EPROM in it it's fine. But if you ever want to modify it for high speed  
or DCD or KISS only you'll regret buying as I did.

Just my opinion and expierience,  
73, Nate

---

Nathan C. Burnett N8MBK  
AX.25 PBBS n8mbk@wb8h.#semi.mi.usa.na  
AMPRNET n8mbk@wsu.n8fow.ampr.org [44.102.48.2] "Nature cannot be fooled"  
Internet nburnett@nyx.cs.du.edu Richard Feynman

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Date: 23 Mar 1994 16:42:23 -0500  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!  
howland.reston.ans.net!news.intercon.com!news1.digex.net!rtp.vnet.net!  
mary.iaa.org!mary.iaa.org!not-for-mail@network.ucsd.edu  
Subject: packet radio kits  
To: ham-digital@ucsd.edu

Can anybody recommend a low-cost packet radio kit? I've ordered the  
Ramsey unit but am looking for others. Actually I'm just looking for a  
modulator/demodulator unit that's suitable for RF transmission. Thanks.

Tim

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Date: 23 Mar 1994 16:01:46 GMT  
From: ihnp4.ucsd.edu!usc!elroy.jpl.nasa.gov!ncar!csn!col.hp.com!  
jms@network.ucsd.edu  
Subject: RS htx202/KPC-3 wiring question



To: ham-digital@ucsd.edu

Bill Turner (wrt@eskimo.com) wrote:

: In article <Cn2GKs.Cou@pica.army.mil>,  
: Mark Ellis <mellis@ramcad.pica.army.mil> wrote:  
: >  
: >UPS last nite dropped off my Kantronics KPC-3 (YAY!), so I'm soon  
: >to be packet-positive. Got one question:  
: >  
: >Since my HT (htx202) is my only rig at the moment, are there  
: >any special considerations while wiring up the mic plug for packet?  
: >  
: >The KPC-3 manual does not specifically mention this radio in the  
: >wiring section, but since Icom speaker-mics (I think, working from  
: >memory) work with the 202, that's a tiny hint to follow the Icom  
: >wiring diagram.  
: >  
: >Any tips/suggestions/etc. will be appreciated.  
: >  
: >  
: >                                .... Mark E. Ellis N2WZB  
: >                                <mellis@ramcad.pica.army.mil>  
: >                                PA&TD Workplace Automation Group  
: >                                SMCAR-QAH-P, Bldg 62N  
: >                                Picatinny Arsenal, NJ  
:  
:  
: Yep, the Icom info is what to use. One caution: look over the  
: plug very carefully under a magnifying glass for loose connections.  
: They are very small and fragile - mine developed a loose connection  
: where the solder lug is rivited to the center conductor and drove  
: me nuts trying to find the problem, since it was VERY intermittent.  
: It wouldn't work when plugged into the radio, but when removed for  
: continuity testing, of course it was ok. Just make sure it's solid.  
:  
In the KPC-3 'Getting Started' book and in the 'Reference Manual', the  
pictures provided for wiring examples show the microphone going to the  
larger of the two 'mini' plugs, and the speaker going to the smaller.  
This is reversed from how it really is. I've never seen anyone  
complain about this, however, I'm sure I'm correct about this.  
Any comments?

Mike, K0TER

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Date: 23 Mar 1994 17:56:03 GMT  
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!msuinfo!netnews.upenn.edu!  
gopher.cs.uofs.edu!triangle.cs.uofs.edu!bill@network.ucsd.edu

Subject: TCPIP on a UNIX box  
To: ham-digital@ucsd.edu

I haven't been following the development of NOS for quite some time now, so maybe someone here can give me a hand.

I currently use a PC as a router between an AX25 LAN and an ETHERNET LAN. I want to expand the number of channels to include not only the AX.25 LAN, but also a bunch of dialup SLIP users. I have at my disposal a MicroVAX II with about 10 serial ports. Is there currently available a version of NOS that will run on the MicroVAX under ULTRIX that will utilize both the serial ports and the ETHERNET and allow routing between them??

bill KB3YV

--

Bill Gunshannon		de-moc-ra-cy (di mok' ra see) n. Three wolves
bill@cs.uofs.edu		and a sheep voting on what's for dinner.
University of Scranton		
Scranton, Pennsylvania		#include <std.disclaimer.h>

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End of Ham-Digital Digest V94 #80  
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